Crestron Adagio™ AES

Entertainment System

The Adagio AES Entertainment System delivers a complete, cost-effective solution for high-performance multi-room audio distribution. Right out of the box, the AES provides sophisticated audio signal routing, processing, and amplification for up to 6 rooms, with extensive control from an enhanced LCD-driven front panel and a choice of room controllers.

Multi-Room Audio—The AES supports up to 6 sets of stereo room speakers, allowing listeners in each room to listen selectively to any of 10 different stereo sources. Its integrated multi-channel power amplifier delivers a robust 45 watts per channel to all rooms. Without requiring any programming, the AES can easily be expanded to support a total of 12 rooms by adding an AAE Audio Expander. Or, as many as 24 rooms can be handled using 3 AAE's with simple setup provided by Crestron Adagio Composer software.

Enhanced Front Panel Control—With its large backlit LCD display, Room and Group select buttons, 4 softkeys and dual rotary encoders, the AES front panel provides a very powerful, yet friendly user interface for controlling audio to a houseful of speakers. Custom naming of rooms, groups, and sources is facilitated on the LCD display, and also on the label strip using Crestron Engraver software.

Room Groups—The "Group" feature makes it simple to combine speakers in adjacent rooms, or switch into whole-house party mode, by letting the user link any number of rooms to function as one. Grouping lets you easily route one source to multiple rooms at once without the sync problems common to streaming-based systems. Up to 6 groups can be defined using the front panel Group buttons.

Versatile Room Controls—A choice of basic 12-button keypads or the advanced APAD wall-mount LCD controller enables versatile control of the AES in every room. A keypad provides the essential controls for adjusting volume, selecting sources, and toggling up and down through tracks and radio channels. For more elegant control, the APAD actually extends the many functions of the AES front panel to each room, providing true feedback for display of audio sources, radio stations, CD titles, artists, and tracks by name, plus audio settings and many other parameters.

Satellite Radio and MP3 Audio Servers—Up to 3 optional radio tuner cards can be installed in the AES to enable combinations of up to 6 AM/FM, XM and Sirius Satellite Radio tuners, letting listeners in different rooms each enjoy their own choice of music, news, sports and talk. In addition, ten line-level inputs are provided (Inputs 1-6 are shared with the tuner card slots) to accommodate external audio sources including Crestron's AAS Audio Server and CEN-IPOD Apple® iPod® Connect. Plug-and-play compatibility with the AAS and CEN-IPOD delivers instant access to an entire collection of music from any room in the house with fully-bidirectional communications for browsing by album, artist, and song title.

2-Series Ethernet Control System—Adagio brings Crestron's industry-leading Total Home Technology to homes of any size and budget. At the heart of the AES is the powerful 2-Series control engine. With both Cresnet and Ethernet connectivity, plus custom programmability using Crestron SystemBuilder™ software, the AES allows nearly limitless expansion and customization using Crestron's entire line of touchpanels, wireless remotes, and hundreds of other devices. The built-in Web server with native e-Control®2 XPanel support enables full remote control over IP from computers and PDA devices, as well as remote diagnostics and updates. Built-in IR, RS-232, relay and digital input ports are included to interface the AES with non-Crestron devices ranging from CD changers to security systems.

Home Automation and Integration—More than just an audio distribution system, the ADES can actually grow as part of a complete home automation solution supporting all of Crestron's Cresnet and infiNET controllable dimmers, shade controllers, thermostats, and so much more.

> Out-of-the-box audio distribution for 6 rooms, expandable up to 24

> Enhanced front panel setup and control

> Choice of 12-button room keypads or APAD LCD controllers

> Optional AM/FM, XM and Sirius Satellite Radio tuner cards

> Plug-and-play support for Adagio Audio Server and iPod Connect

> 2-Series Ethernet control system — programmable to support Crestron touchpanels, wireless remotes, lighting dimmers, thermostats, and much more!

SPECIFICATIONS

Processor

CPU: 32-bit Freescale ColdFire® Microprocessor
Processing Speed: 66 MIPS (Dhrystone 2.1 Benchmark)

Memory

8MB Flash, 32MB SDRAM, 256KB NVRAM

Operating System

Real-time, preemptive, multitasking kernel, multi-threaded, FAT32 file system with long names; supports SIMPL™ Windows® and SIMPL+®

Ethernet

10/100BaseT, static IP or DHCP/DNS, SSL, autonegotiating, full duplex TCP/IP, UDP/IP, SMTP, SNMP, built-in Web server and e-mail client; supports Crestron e-Control 2 XPanel and RoomView applications

Audio

Typical of 6 Room Outputs:
Controls: Volume, Balance, Bass, Treble, Loudness, Mute, Mono, Input Compensation
Volume Gain Range: -80dB to +20dB, 1 dB steps
Mute: -100dB (electronic), -120dB (amp output relay)
Input Compensation: ±10dB
Bass Gain Range: ±12dB @100Hz, 2.0dB steps
Treble Gain Range: ±12dB @10KHz, 2.0dB steps
Frequency Response: 20Hz to 20kHz ±0.2dB
S/N Ratio: >100dB (preamp), 100dB (power amp) 20Hz to 20kHz A-weighted
THD+N: <0.05% (preamp), 0.05% (power amp) 20Hz to 20kHz
Channel Separation: >90dB (preamp), >80dB (power amp)
Room Crosstalk: >100dB

Connectors

NET 1 – 6: (6) 4-pin 3.5mm detachable terminal blocks
Cresnet Master ports, provide data and power for keypads and other Cresnet devices

IR OUT 1 – 8: (8) 3.5mm TRS mini-phone jack, IR/Serial port
IR output up to 1.2 MHz; 1-way serial TTL/RS-232 (0-5V) up to 9600 baud

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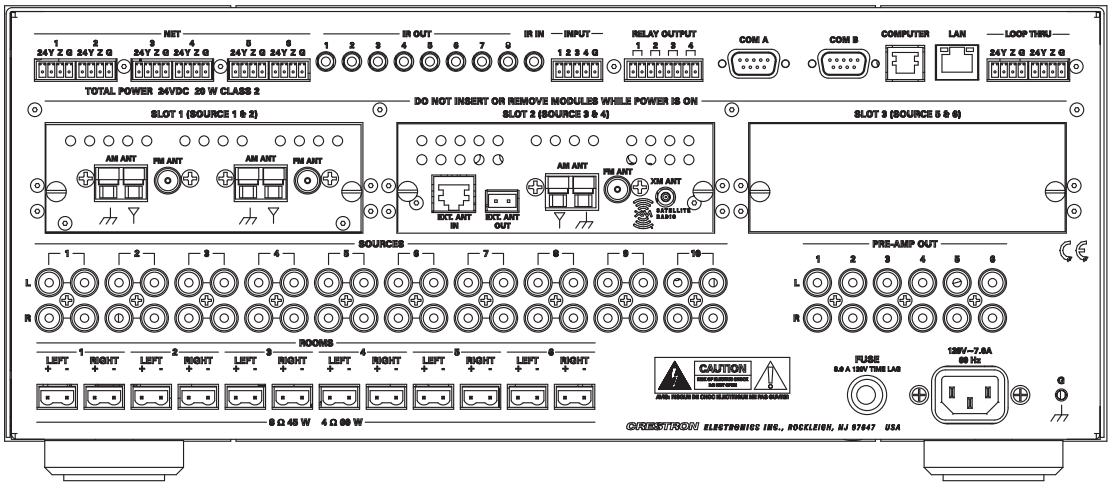

Rear Panel – Shown with ATC-AMFM2 and ATC-AMFMXM tuner cards installed

IR IN: (1) 3.5 mm TRS mini-phone jack
For connection of the CNXRMIRD IR detector (sold separately)
Allows IR wireless control from third-party universal remotes using RC-5 IR commands

INPUT 1 – 4: (1) 5-pin 3.5mm detachable terminal block comprising (4) digital inputs
Rated for 0-24V DC, referenced to GND
Input Impedance: 2k ohms pulled up to 5V DC
Logic Threshold: 2.5V DC nominal

RELAY OUTPUT 1 – 4: (1) 8-pin 3.5mm detachable terminal block
(4) Normally open, isolated relays
Rated 1A, 30V AC/DC; MOV arc suppression across contacts

COM A – B: (2) DB9 male, bidirectional RS-232 ports
Up to 115.2k baud, hardware and software handshaking support

COMPUTER: (1) 6-pin RJ11 female, bidirectional RS-232 computer console port

LAN: (1) 8-wire RJ45 with 2 LED indicators, 10/100BaseT Ethernet port
Green LED indicates link status, Yellow LED indicates Ethernet activity

LOOP THRU: (2) 4-pin 3.5mm detachable terminal blocks
Cresnet Master ports, no power; Y, Z, and G paralleled with NET ports 1 through 6
Normally connect to AAE(s)

SLOT 1 – 3: (3) Adagio tuner card slots; accept choice of dual tuner cards
Outputs from the tuner cards parallel to input and loop-thru jacks for SOURCES 1 – 6

SOURCES 1 – 10: (40) RCA female providing (10) unbalanced stereo line-level audio inputs with parallel loop-thrus; connect to outputs of sources, with loop-thru to AAE;
Inputs 1 through 6 parallel with outputs from tuner card slots
Maximum Input: 3.2 V_{RMS} (flat)
Input Impedance: 47k ohms

PRE-AMP OUT 1 – 6: (12) RCA female providing 6 unbalanced line-level audio outputs
Selectable for variable or fixed level
Maximum Output: 2.5 V_{RMS}
Output Impedance: 100 ohms

ROOMS 1 – 6: (12) 2-pin 5mm detachable terminal blocks, power amplifier outputs
Output Power (per Channel): 45 Watts at 8 ohms, 60 Watts at 4 ohms

FUSE: Main fuse holder; 3AG, 8.0 Amps, 120V AC time lag
120V~7.0A: (1) IEC Male; mates with removable power cord (included)
G: 6-32 screw, chassis ground lug
USB (front): (1) USB computer console port behind label strip

LCD Display

Green transmissive LCD dot matrix, 128 x 64 pixels, adjustable LED backlight

Controls and LED Indicators

STANDBY: Pushbutton with green LED, turns off power amplifier
MUTE: Pushbutton with green LED, mutes audio in selected room or group
MODE: (8) Pushbuttons, select mode for adjustment: SOURCE, ROOM, HOUSE, MENU, BKLT, SCHED, DISPLAY, MORE (refer to manual)
SOFTKEYS: (4) LCD display-driven pushbuttons, select/activate various functions
ROOM: (6) Pushbuttons with green LEDs, labelling strip, select room to adjust
GROUP: (6) Pushbuttons with green LEDs, labelling strip, select group to adjust
FUNCTION: Continuous turn rotary encoder with adjoining "Select" pushbutton with green LED, for selecting and executing functions
VOLUME: Continuous turn rotary encoder, adjusts volume of selected room or group
HW-R: Hardware reset button recessed behind label strip, reboots the control system
SW-R: Software reset button recessed behind label strip, restarts the SIMPL program

Power Requirements

Internal Power Supply: 7 Amps, 120 Volts AC @ 60Hz
Available Cresnet Power: 20 Watts (0.83 Amps @ 24 Volts DC)

Environmental

Temperature: 41° to 104°F (5° to 40°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Black metal with molded ABS/PC front panel; freestanding or 5U rack-mount (rack kit sold separately)

Dimensions

Height: 7.50 in (19.05 cm)
Width: 17.25 in (43.82 cm)
Depth: 18.50 in (46.99 cm)

XM Satellite Radio Statement: Hardware and required basic monthly subscription sold separately. Premium Channel available at additional monthly cost. Installation costs and other fees and taxes, including a one-time activation fee may apply. Subscription fee is consumer only. All fees and programming subject to change. Subscriptions subject to Customer Agreement available at xmradio.com. Only available in the 48 contiguous United States. ©2005 XM Satellite Radio Inc. All rights reserved. All other trademarks are the property of their respective owners.

AVAILABLE ACCESSORIES

APAD
Adagio Wall Mount LCD Controller

C2N-DBF12
12-Button Decorator Function Keypad

AAE
Adagio Audio Expander

ATC-AMFM2
Dual AM/FM Tuner Card

ATC-AMFMXM
AM/FM and XM Satellite Radio Tuner Card

ATC-AMFMSR
AM/FM and Sirius Satellite Radio Tuner Card

AAS
Adagio Audio Server

CEN-IPOD
Apple® iPod® Connect

CNXRMIRD
IR Receiver

STIRP
IR Probe

CNSP-XX
Custom Serial Interface Cable

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